Claims

1. A device to improve the comfort and ocular health of a dry eye syndrome subject and to reduce the harmful effect of dry eye syndrome on the eye and adnexa, the device comprising:

an at least partially enclosed chamber adapted to fit closely to an area surrounding the eye of the dry eye syndrome subject, and thereby to create a local atmospheric microenvironment in the vicinity of at least one eye of the dry eye syndrome subject;

the chamber comprising a substantially optically transparent portion supported beneath a substantially opaque brim structure; and

a reservoir adapted to contain a material subject to vaporization, the reservoir being adapted to release the material in a vaporized state into the local atmospheric microenvironment so as to expose the eye to the vaporized material to ameliorate the negative effects of the dry eye syndrome.

2. The device as claimed in claim 1, in which the reservoir comprises an absorbent layer.

3. The device as claimed in claim 1, in which the reservoir comprises a first absorbent layer and a second layer having wicking and anti-microorganism properties.

4. The device as claimed in claim 1, in which the reservoir comprises super absorbent particles.

5. The device as claimed in claim 1, in which the reservoir comprises a jellified water product.

6. The device as claimed in claim 6, in which the reservoir is supplied dry and moistened at the time of desired use.

7. The device as claimed in claim 1, in which the reservoir is supplied in a premoistened state in a sealed package.

8. The device as claimed in claim 1, in which the reservoir is moistened with a liquid selected from a group consisting of water, purified water, Ringer's solution and a buffered formulation of an appropriate ionic and electrolytic composition to mimic human tears.

9. The device as claimed in claim 1, in which the enclosed chamber is substantially sealed to the face of the dry eye syndrome subject to contain the microenvironment.

10. The device as claimed in claim 1, in which the enclosed chamber further comprises a conforming seal adapted to substantially seal to the face of the dry eye syndrome patient.

11. The device as claimed in claim 1, in which the reservoir is removably attachable within the enclosed chamber.

12. The device as claimed in claim 1, in which the enclosed chamber further comprises a hat supporting the brim.

13. The device as claimed in claim 1, in which the optically transparent portion comprises a first edge suspended from the brim and enclosing the face, and a second edge closely approximating the face and the reservoir being removably attachable within the enclosure.

14. The device as claimed in claim 1, in which the reservoir is supplied dry along with a premeasured quantity of the material subject to vaporization and the material subject to vaporization is applied to the reservoir at the time of desired use.

15. The device as claimed in claim 1, in which a humidity level achieved within the microenvironment exceeds 90% relative humidity.

16. The device as claimed in claim 1, in which a humidity level achieved within the microenvironment exceeds 90% relative humidity and is maintained for in excess of 6 hours.

17. A method for ameliorating the effects of dry eye syndrome on eyes, the method comprising the steps of:

substantially enclosing the eyes and adnexa in a chamber adapted to fit closely to a face of a dry eye syndrome patient thereby creating a local atmospheric microenvironment in the vicinity surrounding an eye the chamber comprising a substantially optically transparent portion supported beneath a substantially opaque brim structure;

placing within the chamber a reservoir adapted to contain a material subject to vaporization, the reservoir being adapted to release the material in a vaporized state into the local atmospheric microenvironment; and

thereby, maintaining within the local atmospheric microenvironment, an atmosphere rich in a vaporized substance that provides beneficial effect to the eyes.

18. The method as claimed in claim 17, further comprising the step of removably attaching the reservoir within the microenvironment.

19. The method as claimed in claim 17, further comprising the step of covering the reservoir with a permeable layer having anti-microorganism properties.

20. The method as claimed in claim 17, further comprising the steps of encapsulating the reservoir in an impermeable package in a premoistened state and opening the impermeable package when it is desired to use the reservoir.

21. The method as claimed in claim 17, further comprising the step of moistening the reservoir with a liquid selected from a group consisting of water, purified water, Ringer's solution and a buffered formulation of an appropriate ionic and electrolytic composition to mimic human tears.

22. The method as claimed in claim 17, further comprising the step of substantially sealing the chamber to the face with a conforming seal.

23. The method as claimed in claim 17, further comprising the step of adapting the chamber to be incorporated into a hat.

24. The method as claimed in claim 17, in which the in which a humidity level achieved within the microenvironment exceeds 90% relative humidity.

25. The method as claimed in claim 17, in which a humidity level achieved within the microenvironment exceeds 90% relative humidity and is maintained for in excess of 6 hours.

26. A device to improve the comfort of a dry eye syndrome patient and to reduce the harmful effect of dry eye syndrome on the eye and adnexa, the device comprising:

optically transparent means for substantially enclosing and fitting closely to an area surrounding the eye of the dry eye syndrome patient thereby creating a local atmospheric microenvironment in the vicinity of at least one eye of the dry eye syndrome patient;

means for shading the eyes from light from above and

means for containing a material subject to vaporization, the material containing means being adapted to release the material in a vaporized state into the local atmospheric microenvironment so as to expose the eye and adnexa to the vaporized material to ameliorate the negative effects of the dry eye syndrome.

27. The device as claimed in claim 26, in which the means for containing is removably attachable within the means for enclosing and fitting closely.

28. The device as claimed in claim 26, in which the means for containing comprises an absorbent layer.

29. The device as claimed in claim 26, in which the means for containing comprises a first absorbent layer and a second layer having wicking and anti-microorganism properties.

30. The device as claimed in claim 26, in which the means for containing comprises super absorbent particles.

31. The device as claimed in claim 26, in which the means for containing comprises a jellified water product.

32. The device as claimed in claim 26, in which the means for containing is supplied dry and moistened at the time of desired use.

33. The device as claimed in claim 26, in which the means for containing is supplied in a premoistened state in a sealed package.

34. The device as claimed in claim 26, in which the means for containing is moistened with a liquid selected from a group consisting of water, purified water, Ringer's solution and a buffered formulation of an appropriate ionic and electrolytic composition to mimic human tears.

35. The device as claimed in claim 26, in which the means for enclosing is substantially sealed to the face of the dry eye syndrome patient to contain the microenvironment.

36. The device as claimed in claim 46, in which the means for enclosing further comprises a conforming seal adapted to substantially seal to the face of the dry eye syndrome patient.

37. The device as claimed in claim 46, in which the means for enclosing further comprises a hat.